



State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JON S. CORZINE
Governor

LISA P. JACKSON
Commissioner

Air Quality Permitting Element
P.O. Box 027
Trenton, NJ 08625-0027
(609)-292-6716

May 23, 2006

Mr. Steve Riva, Chief
Air Permitting Branch
USEPA, Region 2
290 Broadway
New York, NY 10007-1866

RERERENCE: Application for a combined Federal Prevention of Significant Deterioration (PSD) of Air Quality Permit and a Modification to a Title V Air Operating Permit to add Six New Reciprocating Internal Combustion Engines at Manchester Renewable Power Corporation, Program Interest No. 78901, located at Route 70, Lakehurst, Ocean County, NJ 08733.

Dear Mr. Riva:

As a courtesy, I am providing you with this notice of New Jersey's intent to approve a combined federal PSD permit and a significant modification to an approved Air Pollution Control Operating Permit for Manchester Renewable Power Corporation, located at Route 70, Lakehurst, NJ 08733.

This permit application is to construct and operate a project consisting of six identical 2,233 break horse power (bhp), lean burn Reciprocating Internal Combustion Engines (RICE) and electricity generator sets using treated landfill gas (LFG) generated at the Ocean County Landfill to produce maximum 9.6 MW of electricity.

The public comment period closes on June 30, 2006, which means that if you have any comments, I must receive them by June 30, 2006. This notice isn't meant to replace the "proposed permit" process in 40 CFR 70.

We are enclosing the Public Notice, the Fact Sheet, the Statement of Basis document and a diskette containing the draft permit for the subject facility. Upon importing this draft permit into your personal computer with the RADIUS software, you may review this permit electronically. Should you want more information regarding the draft permit, please call me at 609.633.7249.

Sincerely,

Yogesh Doshi
Supervisor

Bureau of Preconstruction Permits

Enclosure: The Fact sheet, Public Notice, the Statement of Basis and a Diskette containing the draft permits



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STATEMENT OF BASIS

May 23, 2006

Manchester Renewable Power Corporation is located at Route 70, Lakehurst, NJ 08733 and consists of a landfill gas to energy combustion facility. Manchester Renewable Power Corporation/LES owns and operates this facility. The DEP has assigned facility identification number 78901 to Manchester Renewable Power Corporation. This statement of basis is for permit number BOP060001.

The facility is classified as a major facility based on its potential to emit 507.6 tons per year of carbon monoxide, 144 tons per year of nitrous oxides and 44.9 tons per year of VOC emissions to the atmosphere.

This permit does not allow hazardous air pollutant to be emitted above the reporting threshold.

This permit allows individual hazardous air pollutant to be emitted at a rate given in the attached FACT SHEET.

The equipment that emits air contaminants from this facility includes: six existing 1138 bhp-hr reciprocating internal combustion engines (RICE) burning landfill gas and six new 2,233 bhp RICE engines with a total maximum electricity generating capacity of 9.6 MW. The new engines are being added to the facility as a result of this modification.

The Responsible Official at the facility has certified that the facility currently meets all applicable requirements of the Federal Clean Air Act and the New Jersey Air Pollution Control Act. Based on this certification, and the Department's evaluation of the information included in the facility's application, the Department has concluded that this air pollution control operating permit should be approved to allow operation of the existing facility for five years. Prior to the expiration of the five year period, the facility will be required to apply for a renewal of this operating permit, at which time the Department will evaluate the facility and issue a public notice with its findings.

The operating permit includes monitoring, recordkeeping and reporting requirements that are sufficient to demonstrate the facility's compliance with the applicable requirements consistent with the following:

1. Provisions to implement the testing and monitoring requirements of N.J.A.C. 7:27-22.18, the recordkeeping and reporting requirements of N.J.A.C. 7:27-22.19, and all emissions monitoring and analysis procedures or compliance assurance methods required under the applicable requirements, including any procedures and methods promulgated pursuant to 40 CFR 64; and
2. Where the applicable requirement does not require direct periodic monitoring of emissions, the Department requires periodic monitoring of surrogate parameters sufficient to yield reliable data from the relevant time period that are representative of the facility's compliance with the permit. Such monitoring requirements include fuel monitoring and methane content in the fuel.

The conditions of approval for this operating permit are based on conditions of approval in all preconstruction permits for equipment at this facility, and on applicable requirements in state and federal air pollution control rules.

FACILITY NAME (FACILITY ID NUMBER)

BOP050001

Activity Number
(assigned by the
Department)

New Jersey Department of Environmental Protection Facility Specific Requirements

Emission unit number
(assigned by the
facility)

Brief description of emission unit

Emission Unit: U1 25 MM BTU/hour Boiler burning Fuel Oil and Natural Gas
Operating Scenario: OS Summary OR OSXX Boiler burning Fuel Oil

OS Summary lists all rules and requirements that apply to an emission unit, regardless of operating scenarios. Emission unit may contain one or more pieces of equipment and the corresponding operating scenarios

OSXX denotes the operating scenario number and lists the rules and requirements that apply to a particular scenario. An operating scenario represents various ways (or scenarios) a piece of equipment can operate.

Records to be kept

Submittal
requirement

Item
Number

Description of applicable
requirement

Air contaminants

Monitoring method to
ensure compliance

Actions to be
taken by the
facility

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Conduct a comprehensive stack test at emission point PTXX at least 18 months prior to the expiration of the approved operating permit to demonstrate compliance with the <u>CO</u> , <u>NOx</u> , <u>TSP</u> and <u>VOC</u> emission limits.[N.J.A.C. 7:27-22.16(e)]	Other: <u>Stack emission testing</u> . Stack test shall be conducted for CO, NOx, TSP, and VOC emissions (add language as needed). Based on any 60 minute period. [N.J.A.C. 7:27-22.16(e)]	Other: <u>Stack test results</u> . [N.J.A.C. 7:27-22.16(e)]	Stack Test - <u>Submit a protocol</u> , <u>conduct stack tests</u> , <u>submit results</u> : As per the approved schedule. <u>Submit a stack test protocol to the Bureau of Technical Services (BTS)</u> at PO Box 437, Trenton, NJ 08625 at least 30 months prior to the expiration of the approved operating permit. [N.J.A.C. 7:27-22.18(e)] and [N.J.A.C. 7:27-22.18(h)]

Rule citation (subchapter, section, and paragraph) for the applicable requirement

Rule citation for the monitoring requirement

Rule citation for the recordkeeping requirement

Rule citations for the submittal/action requirement

Pursuant to N.J.A.C. 7:27-22.33, all preconstruction permits issued to this facility have been incorporated in this operating permit. Each condition in the permit includes the citation of the applicable requirement on which the condition is based. Please refer to the attached explanation sheet for the structure and configuration of conditions of approval, included in the Facility Specific Requirements section of this permit.



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Division of Air Quality
Air Quality Permitting Element
P.O. Box 027
Trenton, NJ 08625-0027

NOTICE OF OPPORTUNITY FOR PUBLIC COMMENT

ON

DRAFT

FEDERAL PREVENTION OF SIGNIFICANT DETERIORATION (PSD) OF AIR QUALITY

PERMIT

AND

DRAFT

**SIGNIFICANT MODIFICATION TO AIR POLLUTION CONTROL OPERATING
PERMIT
(TITLE V)**

SUMMARY

APPLICANT

Manchester Renewable Power Corporation

FACILITY LOCATION

Ocean Energy Corporation, Landfill Gas to Energy Power
Generating Facility, 2498 Route 70, Manchester Township, Ocean
County, NJ 08759

The New Jersey State Department of Environmental Protection (NJDEP) is seeking public comment on its intent to approve a Federal Prevention Of Significant Deterioration (PSD) Air Quality Permit pursuant to the provisions of federal PSD rules promulgated 40 CFR 52.21, and a significant modification to Air Pollution Control Operating Permit for Manchester Renewable Power Corporation (MRPC), pursuant to Title V of the Federal Clean Air Act, the federal rules promulgated at 40 CFR 70, and the state regulations promulgated at N.J.A.C. 7:27-22. These rules and statutes require that a permit be obtained prior to the construction and operation of the proposed facility.

FACILITY DESCRIPTION

The Ocean Energy Corporation (Ocean Energy Corp.) located in Manchester Township, Ocean County, New Jersey, submitted an application in April, 2005, for a PSD permit and a State

Operating Permit to Construct and Operate a project consisting of six identical 2,233 break horse power (bhp), lean burn Reciprocating Internal Combustion Engines (RICE) and electricity generator sets. Treated landfill gas (LFG) generated at the Ocean County Landfill will be used as fuel for the six RICE engines. The proposed project will be located on a leased site within the boundaries of Ocean County Landfill in Manchester Township, Ocean County, New Jersey.

During the review of the application, the Ocean Energy Corp. was purchased by an existing facility, the Manchester Renewable Power Corporation (MRPC), that is located adjacent to the Ocean Energy Corp. site. The MRPC uses LFG from the Ocean County Landfill to power its six internal combustion engines, which generate electricity. MRPC has a Title V Air Operating Permit; hence the six Ocean Energy Corp. engines will now be permitted as a significant modification to the existing Title V Operating Permit of MRPC. At 100 percent load, the six existing MRPC engines each fire at 8.6 million British thermal units per hour (MMBTU/hr) (1138 bhp-hr) and generate 4.5 megawatt (MW) of electricity (total combined generation rate). The MRPC individual engine generator sets are smaller than the proposed Ocean Energy Corp. engine generator sets.

This modification also requires an increase in stack heights of these six existing engines to 37.5 feet to avoid adverse air quality impacts on the landfill from the combination of the new project and existing engines.

Ocean County Landfill owns two (2) enclosed flares and one utility flare. The flaring system is operated when needed to control LFG that is not being used to fuel the existing MRPC LFG-fueled electricity generation facility or the proposed six new engine generator sets.

The six new RICE engines and electricity generator sets will produce 1600 kilowatt (KW) of electricity each. The total maximum electricity generated by these six engine generator sets will be 9.6 MW. Each engine has a maximum heat input rate of 16.38 MMBtu/hr high heating value (HHV). The LFG to be used by the engines will be pretreated by dewatering, compression, and filtration to reduce moisture, water soluble VOC, other materials, and filterable particulates down to three microns in size.

AIR CONTAMINANT EMISSIONS

The six new engines have a cumulative potential to emit more than 77.6 tons per year (tpy) of oxides of nitrogen (NO_x) and 356 tpy of carbon monoxide (CO). Based on the potential annual emissions in Table 1 (given in tons per year), the MRPC facility is considered a new major PSD source since the CO emission increase from the six new engines is 356 tons per year, which is more than the 250 tons per year major facility PSD threshold. The source is also determined to be subject to PSD review and BACT requirements for NO_x and particulate matter less than 10 micron (PM₁₀) as the potential of the six new engines to emit these pollutants is greater than the PSD significant increase emission thresholds.

In addition, Table 1 shows that the project is also subject to Non-attainment New Source Review (NSR) for emissions of NO_x. This is because Ocean County is non-attainment for ozone. NO_x and VOC are precursors to ozone and there is 77.6 tpy increase in NO_x emissions due to the proposed engine generator sets during the contemporaneous period (last 5 years). This increase is greater than the N.J.A.C 7:27-18 (Sub 18) significant net emission thresholds of 25 tpy. Ocean

Energy Corp. is therefore required to purchase 101.0 tons of NOx offsets pursuant to N.J.A.C 7:27-18, at an offset ratio of 1:3 tons reduction to 1.0 tons of NOx emission increase.

TABLE 1
Facility Potential Emissions, Emission Increase from Ocean Energy Corp. Six New Engines, PSD and Non-attainment NSR Thresholds

Pollutant	Potential Emissions from MRPC (TPY)	Proposed Emission Increase from Six New Engines (TPY)¹	Major Facility for PSD or NSR	PSD Applicable	Non-Attainment NSR Sub 18 Threshold Criteria (TPY)	Sub 18 Applicable
Carbon Monoxide (CO)	152	356	Yes (PSD)	Yes	N/A	No
Nitrogen Oxides (NO _x)	66.0	77.6	Yes (PSD/NSR)	Yes	25	Yes
Sulfur Dioxide (SO ₂)	4.47	29.7	No	NA	N/A	No
Particulate Matter (PM/TSP)	5.78	25.9	No	NA	N/A ²	No
PM-10	5.78	25.9	Yes (PSD)	Yes	N/A ²	No
PM-2.5	5.78	25.9	No	NA	N/A ²	No
Volatile Organic Compounds (Ozone)	24.7	20.2	No	NA	25	No

NOTE:S:

¹Maximum potential emissions determined using the worst case load emission rate of each pollutant for 8,760 hours of Landfill gas use for the six new engines.

² Table 1 also shows that Significant Net Emissions Increase of PM10 are 25.9 tons per year. Although this increase is greater than the N.J.A.C 7:27-18 (Subchapter 18) threshold of 15 tpy for PM10, the facility and the project are not subject to Subchapter 18. This is because Ocean county is attainment for PM10, and air quality modeling analysis shows that the increase in PM10 emissions will neither result in an increase in the ambient concentration of PM10 in an area that is non-attainment for PM10, nor would the ambient concentration of PM10 equal or exceed the significant impact level of 1.0 ug/m³ (micrograms per cubic meter) annual average or 5.0 ug/m³ 24-hour average.

Hazardous air pollutant (HAP) emissions from MRPC are 6.62 tpy (13240 lbs/yr) while the increase in HAPs from the project (six new engine generator sets) are 4.9 tpy (9800 lbs/yr).

AIR QUALITY IMPACT ANALYSIS

The Department reviewed the ambient air quality impact of the proposed Ocean Energy Corp. project. Based on the air quality modeling analysis, the Department found that air contaminant emissions from the proposed project would not exceed Federal or New Jersey Ambient Air Quality Standards.

Emissions of NO_x, CO, SO₂ and PM₁₀/PM_{2.5} from Ocean Energy Corp. project alone were first modeled to determine whether they will have a significant impact. The results of the single-source modeling emissions from the project predicted that the impact on the Brigantine Wildlife Refuge Class I area will be insignificant.

Multi source modeling analysis that was done used 27 sources in the vicinity of Ocean Energy Corp., including MRPC and the Ocean County Landfill flares. This analysis predicts that when the stack heights of the six engines belonging to MRPC are increased from 23 feet (ft) to 37.5 ft, the proposed project will not cause or contribute to a violation of a National or New Jersey Ambient Air Quality Standard (NAAQS/NJAAQS). In addition, no contravention of a PSD increment is predicted. The modeling analysis predicted that near the facility up to 83 percent of the 24-hour PM₁₀ Class II PSD increment would be consumed (total combined impact of all PSD applicable sources). Maximum predicted impact for the proposed Ocean Energy Corp. new six engine generator sets is approximately 75% of the PSD increment. In the same area, an annual PM_{2.5} concentration of 14.9 micrograms per cubic meter (ug/m³) is predicted. The contribution from general background sources to the maximum predicted PM_{2.5} impact is 11.1 ug/m³ (i.e., the Ocean Energy Corp., MRPC and the Ocean County Landfill flares combined maximum predicted impact is 3.8 ug/m³). Of these three facilities that were modeled, the new six engines are the main contributor to the 3.8 ug/m³ impacts on the landfill. Off the landfill, the maximum predicted PM_{2.5} impact is notably less.

Risk Assessment

HAP emissions from the proposed project are predicted to pose a negligible cancer and non-cancerous health risk off the Ocean County Landfill property. In addition, the project is not expected to cause an odor problem.

DOCUMENT AVAILABILITY

The Department has prepared a Fact Sheet, the draft modification to the Title V operating permit and the draft Federal Prevention of Significant Deterioration (PSD) of air quality permit. Copies of these documents are available for inspection at the addresses below:

New Jersey Department of Environmental Protection
Air Quality Permitting Element
Bureau of Preconstruction Permits
401 East State St. - 2nd Floor, Box 027
Trenton, NJ 08625

(609) 633-7249

Contact: Yogesh Doshi, Supervising Environmental Engineer

And

NJDEP, Air Compliance and Enforcement
Air Compliance and Enforcement Office
Central Regional Field Office
300 Horizon center, PO Box 407
Trenton New Jersey, 08625
(609) 584-4100
Contact: Joe DePierro

Additionally, a copy of the Ocean Energy Corp. application and this public notice and fact sheet are available at the office of the Mayor of Manchester Township, One Colonial Drive, Manchester, Ocean County, New Jersey 08759 (Phone: 732.657.8121), and at www.state.nj.us/dep/aqpp.

If you would like to inspect the draft permits at either location, please call in advance for an appointment. You may also inspect the application, fact sheet, and supporting materials and other information and documents contained in the supporting file for the draft permit, at the Trenton location listed above, by calling for an appointment.

The public notice and the Fact Sheet have been posted at the Air Quality Permitting website: www.state.nj.us/dep/aqpp.

OPPORTUNITY FOR COMMENT AND RESPONSE

All persons, including the applicant, who believe any condition of the draft permits or the Department's tentative decision to implement these permits is inappropriate must raise all reasonable issues of concern and submit all arguments and factual grounds, or materials supporting their position during the public comment period.

Any comments on the draft permits must be received within thirty days of the date of this notice and addressed to Yogesh Doshi, Bureau of Preconstruction Permits, NJDEP, P.O. Box 027, Trenton, New Jersey 08625-0027.

In accordance with N.J.A.C. 22.11(f), any person may request that the Department hold a public hearing on the draft permits. A request for a public hearing shall be submitted, in writing, within thirty days of the date of this notice to the Department at the Trenton address listed above. The request for public hearing shall include a statement of issues to be discussed at the public hearing. The statement of issues shall be relevant to the draft permit under review by the Department. The public may also request less formal public meeting to discuss the permits.

The Department will consider and respond to all written and timely submitted comments. The applicant, and each person who submitted written comments, will receive a notice of the Department's final decision regarding the Permits and a copy of the Response to Comment document.

BASIS FOR DRAFT APPROVAL OF THE MODIFICATION

The Department reviewed the Lowest Achievable Emission Rate (LAER), Best Available Control Technology (BACT), and State of the Art (SOTA) analyses and found the Ocean Energy Corp. project meets these requirements. Air contaminant emissions from the six new engine generator sets will be controlled by the design of the new engines and good combustion practice. The Ocean Energy Corp. will be required to acquire offsets of potential nitrogen oxides (NO_x) emissions.

The Department has determined that the proposed project's CO, NO_x, and PM-10 emissions meets the requirements of the PSD regulations codified at 40 CFR 52.21. Any subsequent major modifications to the facility would be subject to a separate public comment process.

In addition to PSD regulations, the Department has determined that the proposed project is subject to the federal New Source Performance Standards (NSPS) codified at 40 CFR 60, Subpart WWW; federal National Emission Standard for Hazardous Air Pollutants (NESHAP) subpart AAAA; and the New Jersey Air Pollution Control Regulations, codified in N.J.A.C. 7:27-1 et seq. This project is located in Ocean County which is non-attainment for ozone, as such it was also determined to be subject to Non-attainment New Source Review (NSR) for emissions of NO_x, a precursor for ozone.

The Responsible Official at the facility has certified that the project will meet all applicable requirements of the Federal Clean Air Act and the New Jersey Air Pollution Control Act. Based on this certification, and the Department's evaluation of the information included in the facility's application, the Department has concluded that this significant modification to air pollution control operating permit and the Federal Prevention of Significant Deterioration (PSD) of air quality permit may be approved.

The conditions of approval for this operating permit significant modification are based on ensuring compliance with all necessary and applicable requirements in state and federal air pollution control rules. Consistent with 40 CFR 70.7(a) 5, each condition in the permit includes the citation of the applicable requirement on which the condition is based.

This significant modification to an existing operating permit is issued pursuant to the air pollution control provisions of Title V of the Federal Clean Air Act, federal rules promulgated at 40 CFR 70, and state regulations promulgated at N.J.A.C. 7:27-22. These rules and statutes require facilities which have the potential to emit major amounts of air

contaminants to have an operating permit which includes all the applicable requirements and a compliance plan for each significant source operation at the facility. In addition, these rules require that each subsequent significant modification to Operating Permit be subject to public comment. The following state regulations also apply to the Ocean Energy Corp. equipment being installed:

N.J.A.C. 7:27-3	Control and Prohibition of Smoke from Combustion of Fuel
N.J.A.C. 7:27-4	Control and Prohibition of Particles from Combustion of Fuel
N.J.A.C. 7:27-16	Control and Prohibition of Air Pollution by Volatile Organic Compounds
N.J.A.C. 7:27-19	Control and Prohibition of Air Pollution by Oxides of Nitrogen

Based on an evaluation of the data contained in the facility's application, the Department concludes that this modification would meet the requirements of the Federal Clean Air Act and the New Jersey Air Pollution Control Act. Approval of this significant modification to an existing operating permit would allow the facility to operate consistent with the conditions of approval in the final compliance plan.

OPPORTUNITY FOR ADMINISTRATIVE REVIEW -PSD PERMIT COMPONENT

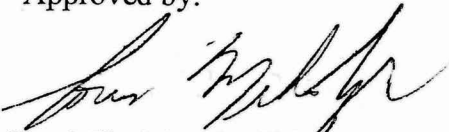
The PSD regulations, specifically 40 CFR 52.21(q), provide for administrative review of the final PSD permit decision within 30 calendar days after the date of issuance of the final permit. The procedural requirements for administrative review are defined in the Consolidated Permits Regulations codified at 40 CFR, part 124 (45 FR 33405). Request for administrative review of a final PSD permit decision should be made to the Administrator of the United States Environmental Protection Agency, 401 M Street, Southwest, Washington, DC 20460.

The comment period will be closed 30 calendar days after the publication of the notice. All persons, including the applicant, who believes any condition of the draft permit is inappropriate must raise all reasonable issues of concern and submit all arguments and factual grounds, or materials supporting their position, during the public comment period.

Administrative review is available only to those persons who commented during the comment period and is restricted to issues raised during the comment period with the exception that any person, including those who failed to file comments or failed to participate in the public comment period on the preliminary permit determination, may petition for administrative review of the changes from the draft PSD permit to the final PSD permit.

Upon the issuance by the Department of the final permit decision, or in the case of the administrative review process, the final PSD permit decision will be a final U.S. Environmental Protection Agency action and will be published in the Federal Register. This final action may be challenged only by filing a petition for review in the United States Court of Appeals for the appropriate circuit within 60 calendar days of the date of the Federal Register notice. The final PSD permit shall not be subject to later judicial review in enforcement proceedings. Opportunity for judicial review is only provided at the completion of the administrative appeal process and is provided only to those persons who were parties in an administrative appeal.

Approved by:



Lou Mikolajczyk, Chief
Bureau of Preconstruction Permits
Air Quality Permitting Element

Date: 5/19/06